

Office Action Summary	Application No. 10/540,052	Applicant(s) SYRBE ET AL.	
	Examiner JOHN M. VILLECCO	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-46 and 48 is/are rejected.
- 7) ☒ Claim(s) 16 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Since there are two preliminary amendments in this application, each having a different listing of claims, the Examiner called the attorney to inquire as to which claims should be examined in this application. In accordance with the interview summary, attached hereto, the Examiner will examine the claim amendment in which the amendments eliminate the multiple dependencies of the original claims.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 35 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966). See MPEP § 2173(q).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-8, 10, 18, 19, 21-25, 35, 38, 39, 41, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 35 provides for the use of a digital camera, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. See MPEP § 2173(q).

7. Regarding claims 4, 10, 18, 19, 21, 22, 24, 25, 38, 39, 41, and 42, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

8. Claims 5-8, 23, and 40 are rejected based on their dependency to a rejected claim.

9. Claim 18 recites the limitations "the display" in lines 3-4, "the image or graphical user interface object" in lines 4-5, "the display" in line 5, and "the image or object" in line 6. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 26-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More specifically, applicant claims the use of a tilt sensor which generates a signal that is used with the signal from the camera to generate the motion signal. The Examiner believes, based on the *In re Wands* factors, that one of ordinary skill in the art would not be enabled to make and/or use the invention. In particular, one of ordinary skill in the art would not be enabled to combine the motion sensing output of a camera and the output of a tilt sensor to generate a single motion signal representative of both, as claimed. The only place which applicant discloses this in the specification is on pages 8 and 15. These pages merely state that a tilt sensor is included in the device and that it can be used with the camera signal to generate a motion signal. There is not detail as to how the motion signal from the camera and the motion signal from the tilt sensor can be combined to form the overall motion signal, as claimed. Furthermore, no prior art has been found that discloses such a feature, and thus, this is not a well known concept in the art. Specifically, based on the *In re Wands* factors, the quantity of experimentation needed would be extremely great to generate a single motion signal from the motion sensing outputs of the camera and tilt sensor. Factors of particular note include (C) the state of the prior art; (D) the level of one of ordinary skill; (F) the amount of direction provided by the inventor; (G) the existence of working examples; (H) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. See MPEP § 2164.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claims 1-7, 9-12, 15, 17, 19, 34 rejected under 35 U.S.C. 102(e) as being anticipated by Ejima et al. (U.S. Publ. No. 2002/0109782).**

13. Regarding ***claim 1***, Ejima discloses an information processing apparatus in which movements of the apparatus serve as an input to the apparatus. More specifically and as it relates to the applicant's claims, Ejima discloses a handheld device (electronic camera, 1) comprising a processor (CPU, 39), a digital camera (CCD, 20) for capturing motion video or still images (paragraphs 0054-0056), and a means for transforming a signal from the camera (CCD, 20) into a motion signal indicative of the motion of the handheld device (electronic camera, 1). See paragraphs 0142-0153 and Figure 11.

14. With regard to ***claim 2***, Ejima discloses a user interface (LCD, 6) in which motion of the handheld device (electronic camera, 1) is used as a user input. See paragraphs 0153-0154.

15. As for ***claim 3***, Ejima discloses a display (LCD, 6) suitable for displaying captured images. See paragraphs 0045-0046.

16. Regarding ***claim 4***, Ejima discloses that the motion derived by the images from the CCD is used to manipulate images shown at least in part on the display (LCD, 6), preferably by

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moving the images in a manner substantially corresponding to the movement of the handheld device (electronic camera, 1). See paragraph 0154.

17. With regard to **claim 5**, Ejima discloses that the motion of the camera can be used to move, zoom, expand, collapse, and rotate images on the display. See paragraphs 0154, 0191, and 0193.

18. As for **claim 6**, Ejima discloses that motion perpendicular to the plane of the display (LCD, 6) is used to zoom an image (paragraph 0191 and Fig. 19), and rotational motion of the handheld device is used to rotate an image displayed on the display (paragraph 0193).

19. Regarding **claim 7**, Ejima discloses that the images are reproduced images. See paragraph 0153.

20. With regard to **claim 9**, Ejima discloses that the motion of the handheld device (electronic camera, 1) can also be used to move a cursor on a screen or to scroll a menu. See paragraphs 0142 and 0158-0161 and Figures 13A-C.

21. As for **claim 10**, Ejima discloses that motion of the handheld device (electronic camera, 1) is used to manipulate an object displayed by the graphical user interface, preferably by moving the object in a manner substantially corresponding to the motion of the handheld device, whereby the object displayed by the graphical user interface is menu and/or a cursor. See paragraphs 0158-0161.

22. Regarding **claim 11**, Ejima discloses that the motion of the handheld device can be used to move the menu items. See paragraph 0159-0160.

23. With regard to **claim 12**, the display of the images in Ejima can also be interpreted to be a graphical user interface. Therefore, Ejima discloses that motion perpendicular to the plane of the

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display (LCD, 6) is used to zoom the graphical user interface (paragraph 0191 and Fig. 19), and rotational motion of the handheld device is used to rotate the graphical user interface (paragraph 0193).

24. As for *claim 15*, Ejima discloses that the motion signal is determined from changes between succeeding images. See paragraphs 0189-0190.

25. Regarding *claim 17*, Ejima discloses that the use of a scroll prevention switch for preventing the detection of motion. See paragraphs 0194, 0198, and 0207.

26. With regard to *claim 19*, Ejima discloses that the menu can be used to adjust LCD panel settings and speaker settings. See Figure 13c. Thus, Ejima discloses that the motion signal can be used to adjust device settings including sound settings and display settings.

27. *Claim 34* is considered to be a method claim corresponding to claim 1. Please see the discussion of claim 1 on the preceding pages.

28. Claims 1 and 29-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Hinckley et al. (U.S. Patent No. 6,844,871).

29. Regarding *claim 1*, Hinckley discloses an optical mouse for inputting motion information to a computer. More specifically and as it relates to the applicant's claims, Hinckley discloses a handheld device (mouse, 200) comprising a processor (DSP, 310), a digital camera (camera, 294) for capturing motion video or still images, and means for transforming a signal from the camera into a motion signal indicative of the motion of the handheld device (also DSP, 310). See Figure 10 and column 8, lines 14-34.

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30. As for **claim 29**, Hinckley discloses that the mouse is connected to the computer via a hardwire connection (wired), an infrared (IRDA) connection, or an RF (radio frequency) connection. See column 7, lines 7-15.

31. With regard to **claim 30**, Hinckley discloses an optical mouse for inputting motion information to a computer. More specifically and as it relates to the applicant's claims, Hinckley discloses a handheld device (mouse, 200) comprising a processor (DSP, 310), a digital camera (camera, 294) for capturing motion video or still images, and means for transforming a signal from the camera into a motion signal indicative of the motion of the handheld device (also DSP, 310). See Figure 10 and column 8, lines 14-34. Additionally, Hinckley discloses that the mouse can be used to manipulate 3-D objects on a 2-D screen of the computer. See column 14, lines 35-58.

32. As for **claim 31**, Hinckley discloses that position changes of the mouse are translated to position changes of the displayed object. See column 14, lines 35-58.

33. With regard to **claim 33**, Hinckley discloses that orientation changes of the mouse are translated into corresponding changes in the viewing direction. See column 14, lines 35-58.

34. Regarding **claim 32**, Hinckley discloses an optical mouse for inputting motion information to a computer. More specifically and as it relates to the applicant's claims, Hinckley discloses a handheld device (mouse, 200) comprising a processor (DSP, 310), a digital camera (camera, 294) for capturing motion video or still images, and means for transforming a signal from the camera into a motion signal indicative of the motion of the handheld device (also DSP, 310). See Figure 10 and column 8, lines 14-34. Additionally, Hinckley discloses that the mouse

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can be used to change the viewing position of an object displayed on the screen. See column 18, lines 50-60.

35. Claims 1, 2, 9, 36, 43-46, and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Silverstein (U.S. Patent No. 7,187,412).

36. Regarding *claim 1*, Silverstein discloses a pointing device for a digital camera display. More specifically and as it relates to the applicant's claims. Silverstein discloses a handheld device (camera, 100) comprising a processor (control unit, 140), a digital camera (image capture unit, 110), and a means for transforming the sensed motion of the handheld device (camera, 100) into a signal suitable for moving the cursor over the display. See column 3, lines 37-45 and column 4, lines 31-39.

37. As for *claim 2*, Silverstein discloses a user interface (display, 160) in which motion of the handheld device is used as a user input. See column 4, line 65 to column 5, line 15.

38. With regard to *claim 9*, Silverstein discloses a graphical user interface (display, 160) in which motion of the handheld device is used as a user input. See column 4, line 65 to column 5, line 15.

39. Regarding *claim 36*, Silverstein discloses a pointing device for a digital camera display. More specifically and as it relates to the applicant's claims. Silverstein discloses a handheld device (camera, 100) comprising a processor (control unit, 140), means for sensing motion (motion detection unit, 130) of the handheld device (camera, 100), a display (display, 160), a keypad (selection buttons, 170A-C) with at least first and second keys, a graphical user interface (displayed on display, See Figures 3-10) with objects and a cursor, and a means for transforming

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the sensed motion of the handheld device (camera, 100) into a signal suitable for moving the cursor over the display. See column 3, lines 37-45 and column 4, lines 31-39.

40. As for *claim 43*, Silverstein discloses that the motion is detected from images captured by the image capture unit (CCD or CMOS imager, 110). See column 3, lines 1-15.

41. With regard to *claim 44*, Silverstein discloses that the camera is either a motion camera or a still camera. It is noted that a motion image is nothing but a number of captured still images.

42. Regarding *claim 45*, Silverstein discloses the use of a motion detection unit (130) which determines motion from the images output from the camera.

43. As for *claim 46*, Silverstein discloses that the motion is determined from the changes between succeeding images. See column 3, lines 10-15.

44. With regard to *claim 48*, Silverstein discloses that the graphical user interface includes icons (col. 3, line 41 and Figure 3a), dialogue boxes (Figure 9), windows (Figure 3), and pointers (Figure 3).

Claim Rejections - 35 USC § 103

45. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

46. **Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ejima et al. (U.S. Publ. No. 2002/0109782).**

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47. Regarding *claim 13*, as mentioned above in the discussion of claim 2, Ejima discloses all of the limitations of the parent claim. Ejima, however, fails to explicitly disclose that the digital camera is detachable. Official Notice is taken as to the fact that it is well known in the art to make the camera portion of a handheld device detachable. There are various advantages for this, including the ability to remove the camera when not in use, thereby reducing power consumption and reducing the overall size and the ability to place the camera in a remote location for capturing remote images. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the camera of the device in Ejima detachable.

48. Regarding *claim 14*, as mentioned above in the discussion of claim 2, Ejima discloses all of the limitations of the parent claim. Ejima, however, fails to explicitly disclose that the digital camera is moveable relative to the handheld device. Official Notice is taken as to the fact that it is well known in the art to make the camera portion of a handheld device rotatable. Such an arrangement allows the camera portion to be directed in any direction and allows the user to capture many different fields of view. Therefore, it would have been obvious to one of ordinary skill in the art to make the camera device of Ejima rotatable.

49. **Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverstein (U.S. Patent No. 7,187,412) in view of Anderson (U.S. Patent No. 6,154,210).**

50. Regarding *claim 41*, as mentioned above in the discussion of claim 36, Silverstein discloses all of the limitations of the parent claim. Silverstein, however, fails to specifically disclose that the first and second keys are softkeys, whereby the current functionality of the softkeys is shown on the display in dedicated fields. Anderson, on the other hand, shows just

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such an arrangement. More specifically, as shown in Figures 1A, 9C, and 9D, Anderson shown buttons (416), which are softkeys, and the ability to display their functionality on the display (402). It is well known in the art the softkeys enable multiple functionalities to be implemented using only one physical key. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the keys of Silverstein, softkeys, so that multiple functionalities can be implemented by the same button.

51. As for *claim 42*, Anderson discloses an embodiment in which the first softkey, “Function 1” is displayed on the lower lefthand side of the display, and the second softkey, “Function 3” is displayed on the lower righthand side of the display.

52. **Claims 20, 24, 25, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverstein (U.S. Patent No. 7,187,412) and further in view of Anderson (U.S. Patent No. 6,249,316).**

53. Regarding *claim 20*, as mentioned above, Silverstein discloses all of the limitations of the parent claim. Additionally, Silverstein discloses a keypad (buttons, 170A-170C) with first and second keys. Furthermore, Silverstein discloses that the graphical user interface allows a user to position a cursor over and object in the graphical user interface and to select that object using the keys (170). Silverstein, however, fails to explicitly disclose that primary functions associated with the object concerned are activated by pressing the first key and secondary functions associated with the object are activated using the second key. Anderson, on the other hand discloses that it is well known in the art to include a plurality of keys used in selecting different functions to be performed on a selected object. More specifically, Anderson discloses a user

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interface in which function keys (412) are used to perform various operations on selected images. The "delete" button is interpreted to be a primary function and the "view" key is interpreted to be a secondary function. See Figure 4. Such an arrangement allows for various operations to be performed on selected images. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the keys of Silverstein to perform primary and secondary functions on selected images so that the user can perform different operations on the image.

54. As for *claim 24*, Anderson discloses that the first and second keys are softkeys and that the current functionality is displayed on the display. See column 5, lines 13-67.

55. With regard to *claim 25*, as shown in Figure 4 of Anderson the first key is placed below the display on the left hand side and the second key is placed below the display on the right hand side.

56. Regarding *claim 37*, as mentioned above, Silverstein discloses all of the limitations of the parent claim. Additionally, Silverstein discloses a keypad (buttons, 170A-170C) with first and second keys. Furthermore, Silverstein discloses that the graphical user interface allows a user to position a cursor over and object in the graphical user interface and to select that object using the keys (170). Silverstein, however, fails to explicitly disclose that primary functions associated with the object concerned are activated by pressing the first key and secondary functions associated with the object are activated using the second key. Anderson, on the other hand discloses that it is well known in the art to include a plurality of keys used in selecting different functions to be performed on a selected object. More specifically, Anderson discloses a user interface in which function keys (412) are used to perform various operations on selected

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images. The "delete" button is interpreted to be a primary function and the "view" key is interpreted to be a secondary function. See Figure 4. Such an arrangement allows for various operations to be performed on selected images. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the keys of Silverstein to perform primary and secondary functions on selected images so that the user can perform different operations on the image.

Allowable Subject Matter

57. Claims 8, 18, 21-23, and 38-40 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

58. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the movement of the image is inverted with respect to motion of the handheld device.

As for claim 18, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that rotational motion of the handheld device about an axis substantially perpendicular to the display results in an inverse rotational movement of the image or graphical user interface object relative to the display.

With regard to claims 21 and 38, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the functionality of the first

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key is associated with selection and activation of objects of the graphical user interface, and in which the functionality of the second key is associated with calling up a context-sensitive menu.

59. Claims 16 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

60. Regarding claims 16 and 47, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the camera has an autofocus system, whereby the focusing setting of the autofocus system is used for detecting movement in the camera direction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. VILLECCO whose telephone number is (571)272-7319. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOHN M. VILLECCO/
Primary Examiner, Art Unit 2622
November 14, 2008